To: Vaughn, Stephanie[Vaughn.Stephanie@epa.gov]
From: Robert Law
Sent: Mon 3/2/2015 2:55:01 PM
Subject: RE: RE: Question on river mile associations
extended_centerline.zap
FM-120220-1_sampleIDs.pdf

>>> "Vaughn, Stephanie" <Vaughn.Stephanie@epa.gov> 3/2/2015 9:50 AM >>>
Hi Rob - was there supposed to be a zip file attached to this email? If so, could you resend it with the extension changed, we can't get zips.
Thanks

From: Robert Law [mailto:rlaw@demaximis.com]
Sent: Monday, February 23, 2015 6:12 PM
To: Vaughn, Stephanie
Cc: Kristen Durocher; Laura Kelmar; Willard Potter; Jim Herberich
Subject: Fwd: RE: Question on river mile associations

For the eight samples indicated with large differences in River Mile (Event 12B, Location TTR2), there is an error that will be corrected in the database. The new locations (i.e., correction in the sample ID associated with the lat/long data) will be as follows:

[redacted]

12B-CE01-TTR2-AS	12B-CE02-TTR2-AS	Flood	598255.6	6[illegible]4193.280	3.140	2.01	1.130	5966.4
12B-CE01-TTR2-BS	12B-CE02-TTR2-BS	Flood	598255.6	6[illegible]4193.280	3.140	2.01	1.130	5966.4
12B-CE02-TTR2-AS	12B-CE03-TTR2-AS	High	592821.3	6[illegible]5209.410	4.250	3.15	1.100	5808
12B-CE02-TTR2-BS	12B-CE03-TTR2-BS	High	592821.3	6[illegible]5209.410	4.250	3.15	1.100	5808
12B-CE03-TTR2-AS	12B-CE04-TTR2-AS	Ebb	588229.4	6[illegible]2380.970	2.140	4.26	1.120	5913.6
12B-CE03-TTR2-BS	12B-CE04-TTR2-BS	Ebb	588229.4	6[illegible]2380.970	2.140	4.26	1.120	5913.6
12B-CE04-TTR2-	12B-CE01-TTR2-	Low	592837.0	6[illegible]5208.520	1.000	3.15	1.150	6072

AS	AS						
12B-CE04-TTR2-BS	12B-CE01-TTR2-BS	Low	592837.0200	695208.5202	1.000	3.15	1.150	6072

The sample ID labeling is consistent with the Field Modification FM-120220-1 (attached). The field team had mistakenly started numbering with the "CE01" designation, but we were actually on a flood tide (CE01).

The original target locations sent by Moffat and Nichol are below (note Tidal 2 at 600 cfs):

	Q=500 cfs		Q=600 cfs	
	Tidal 1	**Tidal 2**	**Tidal 1**	**Tidal 2**
LW Slack	3	2.2	2.6	2
Max Flood Velocity	5.3	3.35	4.8	3.1
HW Slack	7.6	4.5	7	4.2
Max Ebb Velocity	5.3	3.35	4.8	3.1

Some locations as lat/long (the 12B-TTR2 locations) will change and the CPG will send updated change tables for the SV CWCM report.
Regarding the minor (50-150 ft or so) difference in the remaining sample locations (by RM), AECOM believes this is a difference in the way EPA and CPG have calculated River Mile. AECOMS' explanation is below and attached (extended centerline.zip).

AECOM belives that EPA may have used a different methods to determine river miles, or perhaps a different reference. AECOM usea the ArcGIS tool "Locate features Along Route" with the measured centerline received from MPI several years ago, extended to go below RM Zero and above the dam. AECOM believes that could explain all of the .01, .02, and .03 differences. I have attached the shapefile of the measured centerline AECOM has used.

AECOM is not aware of per-river mile binning of CWCM data, but, if done, only those 12B-TTR2 samples and 12F-CE03-TTR2 (3.99 vs. 4.0, so depends if the break is "<" or "<=") have an RM difference that puts them in a different whole-mile bin."
If EPA can indicate their method, we should be able to come to a resolution on this question.

Please let us know if this answers EPA's questions.

Thank you.

R/
ROb

>>> "Vaughn, Stephanie" <Vaughn.Stephanie@epa.gov> 2/19/2015 1:30 PM >>>
Hi Rob,
While working with the Passaic River CWCM data, the team noted that some of the river miles (RM)

contained in the database do not align with the coordinates associated with the sample location. We realize that some samples might be offset but many of the sample locations on the attached table are offset by greater than 50 feet.
Would you please have your data team review the attached information and confirm that the RMs from our database are the same you currently have in your database. If they are, please provide some explanation of these differences and if your team uses the RMs associated in the database when they bin the data. Also, please export a table containing location, sample, coordinates and RM so we can verify that our databases are aligned in this regard.
Thanks
>>> "Durocher, Kristen" <kristen.durocher@aecom.com> 2/23/2015 4:56 PM >>>